

REMARKS

INTRODUCTION

In accordance with the foregoing, no claims have been amended. Claims 1-14 are pending and under consideration. Reconsideration is respectfully requested.

CLAIM REJECTIONS – 35 USC 103

Claims 1-14 were rejected under 35 USC 103(a) as being unpatentable over Kobayashi et al. (US 6,238,042) (hereinafter "Kobayashi") in view of Higuma et al. (US 6,174,053) (hereinafter "Higuma") and further in view of Oda et al. (US 5,552,816) (hereinafter "Oda").

Higuma discusses an ink tank, head cartridge and ink jet printing apparatus. In one embodiment of Higuma, a foamed block 232 molded of a melamine resin is accommodated in a housing 231, a dimension a2 of the foamed block 232 located remote from an ink feeding port 233 is determined to be smaller than a dimension a1 of the same located in the proximity of the same so that the foamed block 232 has a certain gradient across the length of the foamed block along the upper surface of the same between both the dimensions a1 and a2. With such construction, while the foamed block 232 is accommodated in the housing 233, a cell size of the foamed block 232 is distributed such that a number of cells are forcibly formed in such a manner as to allow the cell size to become smaller as the measuring position approaches toward the ink feeding port 233 more and more. As a result, since an intensity of ink retaining force becomes higher toward the ink feeding port 233, ink can stably be fed to a printing head 234 attached to the fore surface of the housing 231. Higuma, 18:17-18:34 and Figure 7.

Oda discusses an ink tank, ink-jet cartridge and ink-jet recording apparatus. In Oda, the ink tank T attached to the tank holder 11 of the head cartridge H has a bottom wall 21, a frame-like side wall 22 extending upward from the bottom wall 21, and a top wall 23 for blocking the upper end of the side wall 22. The side wall 22 has an external shape so that it can be fitted to the internal shape of the side wall 13 of the tank holder 11. The internal volume of the ink tank T is formed in such a manner that the horizontally sectional area gradually increases from the lower portion to the upper portion thereof. The internal volume of the ink tank T at the upper end portion is kept constant regardless of the height.

Claims 1 and 8 recite: "...wherein the difference between the height of the foam and the height of the foam chamber increases progressively closer to a side of the filter." As stated in the Office Action, Kobayashi does not discuss that the height of the foam and the height of foam chamber increases progressively closer to a side of the filter. Higuma, however, does not cure this deficiency in Kobayashi. Higuma discusses a foamed block 232 accommodated in a housing 231. A dimension a2 of the foamed block 232 located remote from an ink feeding port 233 is smaller than a dimension a1 so that the foamed block 232 has a certain gradient across the length of the foamed block along the upper surface of the same between both the dimensions a1 and a2. With this construction, a cell size of the foamed block 232 is distributed such that a number of cells are forcibly formed in such a manner as to allow the cell size to become smaller as the measuring position approaches toward the ink feeding port 233 more and more. As a result, since an intensity of ink retaining force becomes higher toward the ink feeding port 233, ink can stably be fed to a printing head 214.

In contrast to claim 1 and 8, the oversized foam block 232 of Higuma creates an area of small cells across the entire fore surface of the housing adjacent to the print head. Claims 1 and 8 specifically recite that the difference between the height of the foam and the height of the foam chamber increases progressively closer to a side of the filter. The benefits of this technical feature of claims 1 and 8 can be seen in Figure 2 of the present application, where the smaller foam cells are found in the immediate vicinity of the ink filter. Even if combined with an ink tank such as discussed in Oda, one having a horizontal sectional area gradually increases from the lower portion to the upper portion, Higuma does not discuss that the area of smaller cells is specifically concentrated near an ink filter. As such, it is respectfully submitted that claims 1 and 8 patentably distinguish over Kobayashi, Higuma and Oda.

Claims 2-7 and 9-14 depend on claims 1 and 8, respectively, and are believed to be allowable for at least the foregoing reasons. Further, claims 2-7 and 9-14 recite features that patentably distinguish over Kobayashi, Higuma and Oda, taken alone or in combination. For example, claim 2 recites that the foam chamber has a lower part having one or more inclines.

Withdrawal of the foregoing rejection is requested.

CONCLUSION

There being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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